REMARKS

In response to the Office Action mailed December 8, 2008, Applicants respectfully request reconsideration. To further the prosecution of this Application, Applicants submit the following remarks. The claims are believed to be in allowable condition.

Claims 1-15, 21-25, and 31-38 are pending in this Application. Claims 32, 34, 36, and 38 have been withdrawn from consideration. Claims 1, 6, 11, and 21 are independent claims.

Rejections under §102 and §103

Claims 1-15 and 21-25 were rejected under 35 U.S.C. §102(b) as being anticipated by "Network Intrusion Detection: Evasion, Traffic Normalization, and End-to-End Protocol Sematics" (Handley, et al.). Claims 31, 33, 35, and 37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Handley in view of U.S. Patent Publication No. 2003/00095494 (McElligott).

Applicants respectfully traverse each of these rejections and request reconsideration. The claims are in allowable condition.

Handley teaches several methods by which an attacker can evade detection by a network intrusion detection system (NIDS) by exploiting ambiguities (Pages 1-3). Handley then discloses a normalizer which is capable of altering packets to remove certain ambiguities to prevent these kinds of attacks from succeeding (Pages 3-15). In particular, one ambiguity that is discussed is the situation in which a packet arrives at a NIDS with a time-to-live (TTL) field too small to allow it to reach its destination (Page 2, Col. 1, item iii). A solution to this problem is presented according to which a packet normalizer increases the TTL of every incoming packet to a value large enough to ensure that every path within the protected network is reachable (Page 4, Col. 2, fourth paragraph and Page 9, Col. 1, at TTL solution #3).

Claims 1-5

Claim 1 recites a method of blocking attacks on a protected computer network. The method includes (a) receiving a plurality of packets from a network, each packet having a packet time to live (TTL) value and belonging to a corresponding packet flow, (b) storing the smallest packet TTL value received from each corresponding packet flow, and (c) prior to transmitting each packet, setting the packet TTL value to the smallest packet TTL value received for the corresponding packet flow.

The cited reference does not teach a method which includes, prior to transmitting each packet, *setting a packet TTL value to the smallest packet TTL value received for a corresponding packet flow*. In contrast, Handley discloses a normalizer which **raises** the TTL of an incoming packet to a **minimum-acceptable value** in order to ensure that the packet will be able to reach any point within the internal network without timing out (Page 4, Col. 2, fourth paragraph and Page 9, Col. 1, at TTL solution #3).

Claim 1 distinguishes over Handley for the reasons previously presented in the Amendment filed on August 11, 2008. The Office Action argues that these reasons are not persuasive. Applicants respectfully disagree.

Applicants intend to show that the Office Action has inadvertently mischaracterized the prior art reference.

The Office Action, on page 7, responds to Applicants' traversal by arguing that, in Handley, each TTL is inherently *stored*[1] when it is handled within a digital system, and if a packet arrives with a TTL less than the "configured minimum," then it is "restored" (see Office Action at page 7) to the minimum.

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[1] Applicants wish to respectfully point out that this is a red herring because even if the TTL of each packet received by Handley is inherently *stored* (and Applicants make no admission by this statement), the claim still requires *setting* the packet TTL value *to the smallest packet TTL value received for the corresponding packet flow*, which, it will be shown below, is not shown by Handley.

It seems that the Office Action has inadvertently misunderstood the word "minimum." Handley teaches: "**Configure the normalizer with a TTL** that is larger than the longest path across the internal site. **If packets arrive that have a TTL lower than the configured minimum**, then the normalizer **restores the TTL to the minimum**" (Page 9, Col. 1, at TTL solution #3) (emphasis added). The ending words, "the minimum" clearly refer back to the words "the configured minimum" for **antecedent basis**[2], and those words, in turn, clearly refer back to the words "[c]onfigure the normalizer with a TTL that is larger than the longest path across the internal site" for **antecedent basis**.

The normalizer, for each received packet, therefore, modifies the TTL of that packet by increasing it to the **configured minimum**, which was **configured** to be a **TTL that is larger than the longest path** across the internal site. Thus, the "minimum" of Handley is clearly not equivalent to *the smallest packet TTL value received for the corresponding packet flow*, since the "minimum" of Handley is a minimum number of hops required to traverse the internal site, rather than a *smallest TTL value received* from a *flow*. Thus, Handley does not teach *setting the packet TTL value to the smallest packet TTL value received for the corresponding packet flow*.

For the reasons stated above, claim 1 patentably distinguishes over the cited prior art, and the rejection of claim 1 under 35 U.S.C. §102(b) should be withdrawn. Accordingly, claim 1 is now in allowable condition.

Because claims 2-5 and 32-32 depend from and further limit claim 1, claims 2-5 and 31-32 are in allowable condition for at least the same reasons. Additionally, it should be understood that the dependent claims recite additional features which further patentably distinguish over the cited prior art.

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[2] Applicants use the term "antecedent basis" in the ordinary grammatical meaning of the term rather than in the technical meaning of the term as applied to claim construction under 35 U.SC. § 112. Clearly, the rules of English grammar are needed to properly understand the meaning of any document written in English, including prior art references. *See Finisar Corp. v. The DirecTV Group*, 07-1023, *20-22 (Fed. Cir., April 18, 2008).

Claims 6-15, 21-25, and 33-38

Claims 6, 11, and 21 recite limitations which are similar to the limitations of claim 1. Accordingly, claims 6, 11, and 21 distinguish over the prior art for reasons similar to those presented above in connection with claim 1.

For the reasons stated above, claims 6, 11, and 21 patentably distinguish over the cited prior art, and the rejection of claims 6, 11, and 21 under 35 U.S.C. §102(b) should be withdrawn. Accordingly, claims 6, 11, and 21 are in allowable condition.

Because claims 7-10 and 33-34 depend from and further limit claim 6, claims 7-10 and 33-34 are in allowable condition for at least the same reasons. Additionally, it should be understood that the dependent claims recite additional features which further patentably distinguish over the cited prior art.

Because claims 12-15 and 35-36 depend from and further limit claim 11, claims 12-15 and 35-36 are in allowable condition for at least the same reasons. Additionally, it should be understood that the dependent claims recite additional features which further patentably distinguish over the cited prior art.

Because claims 22-25 and 37-38 depend from and further limit claim 21, claims 22-25 and 37-38 are in allowable condition for at least the same reasons. Additionally, it should be understood that the dependent claims recite additional features which further patentably distinguish over the cited prior art.

Conclusion

In view of the foregoing remarks, this Application should be in condition for allowance. A Notice to this effect is respectfully requested. If the Examiner believes, after this Response, that the Application is not in condition for allowance, the Examiner is respectfully requested to call the Applicants' Representative at the number below.

Applicants hereby petition for any extension of time which is required to maintain the pendency of this case. If there is a fee occasioned by this Response, including an extension fee, please charge any deficiency to Deposit Account No. 50-3661.

If the enclosed papers or fees are considered incomplete, the Patent Office is respectfully requested to contact the undersigned collect at (508) 616-2900, in Westborough, Massachusetts.

Respectfully submitted,

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